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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,853	12/12/2001	Garrette Herschleb	TQN-0101	3920

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EXAMINER

HAILE, FEBEN

ART UNIT PAPER NUMBER

2663

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,853

Applicant(s)

HERSCHLEB ET AL.

Examiner

Feben M. Haile

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date December 12, 2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-5, 6-9, 23-27, & 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sufleta (US 6785237), hereinafter referred to as Sufleta.

Regarding claims 1 and 23, Sufleta discloses a plurality of passive probes attached to a plurality of network connections in a packet communication network (**figure 1; probes**), and a collector correlator in communication with the plurality of probes (**figure 1; correlation device**), the collector correlator determining a dropped packets measurement (**column 1 lines 28-32; correlation measures instances of dropped packets**).

Regarding claim 2, Sufleta discloses wherein the collector correlator measures a delay time (**column 1 lines 28-32; correlation measures transport latency; it is inherent to one of ordinary skill in the art that latency is a synonym for delay**).

Regarding claims 3 and 26, Sufleta discloses wherein the collector correlator measures a jitter (**column 1 lines 28-32; correlation measures transport latency; it is inherent to one of ordinary skill in the art that latency is a synonym for jitter**).

Regarding claim 5, Sufleta discloses wherein each of the plurality of passive probes has a time stamp subsystem (**column 4 lines 45-47; each of the probes generate a time stamp**).

Regarding claim 6, Sufleta discloses wherein each of the plurality of passive probes has a probe packetizer (**column 4 lines 4-8; the probes derive a unique signature for each packet**).

Regarding claims 7 and 24, Sufleta discloses wherein the collector correlator transmits a control information packet (**column 1 lines 38-39; correlation device generates QoS parameters**).

Regarding claims 8 and 25, Sufleta discloses wherein one of the plurality of probes transmits a report packet (**column 4 lines 8-10; the unique signature information is transferred from the probes to the correlation device**).

Regarding claims 9 and 29, Sufleta discloses wherein the collector correlator is capable of calculating a quality of service without monitoring every network connection (**column 6 lines 36-38; quality of service monitoring is done for selected parts of the network**).

Regarding claim 27, Sufleta discloses wherein the at least two passive probes have a common clock (**column 4 lines 45-54; the probes are clock synchronized**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title; if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 10-17, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Lloyd et al. (US 2003/0039212), hereinafter referred to as Lloyd in view of Klinker et al. (US 2003/0133443), hereinafter referred to as Klinker.

Regarding claim 10, Lloyd discloses a) defining a flow to monitor at a collector correlator (**page 2 paragraph 0047; a collector identifies a flow to be monitored**); b) transmitting a control information to a probe (**page 3 paragraph 0059; the collector communicates with a bender**); c) selecting a traffic packet at the probe based on the control information packet (**page 3 paragraph 0062; the bender collects information from various paths defined by the collector**);

Lloyd fails to teach and d) transmitting a report from the probe to the collector correlator.

Klinker discloses a passive calibrator that monitors a flow and communicates its findings to a controller (**page 6 paragraph 0074**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lloyd to incorporate the teachings of Klinker. The motivation being controlling the routing of data over a network using passive flow techniques for analyzation.

Regarding claim 11, Lloyd as modified by Klinker discloses the limitations of base claim 10.

Lloyd further teaches that a flow can be selected for monitoring on the basis of performance input, user input, or other metrics (**page 2 paragraph 0048**).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made that another metric for flow determination can be random selection. The motivation for randomly selecting a flow to monitor being to prevent partiality.

Regarding claim 12, Klinker discloses a1) receiving a user input defining the flow to monitor (**page 14 paragraph 0150; user-defined mechanism is employed by the controller to detect flows to be monitored**).

Regarding claim 13, Klinker discloses a1) defining a pair of packet addresses (**page 14 paragraph 0151; the flow is identified by addresses**).

Regarding claim 14, Klinker discloses a1) selecting a port number (**page 14 paragraph 0151; the flow is identified by the ports**).

Regarding claim 15, Klinker discloses a1) selecting a type of protocol (**page 8 paragraph 0090; traffic flows are monitored according to their protocols**).

Regarding claim 16, Klinker discloses a1) selecting which of the plurality of probes are to monitor the flow (**page 7 paragraph 0084; the controller selects probes for initiating probing of network paths**).

Regarding claim 17, Klinker discloses d1) determining a time the traffic packet was detected (**page 2 paragraph 0024; monitoring a flow over a period of time**).

Regarding claim 19, Klinker discloses i) defining a time of day (**page 5 paragraph 0067; a characteristic that controls the flow of data is cost structures with regards to time of day**).

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3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sufleta (US 6785237), hereinafter referred to as Sufleta in view of Grenot (US 6853619), hereinafter referred to as Grenot.

Regarding claim 4, Sufleta discloses the limitations of base claim 1.

Sufleta fails to teach wherein each of the plurality of passive probes has a sampler.

Grenot discloses a sampling mechanism that observes the flow between the probes and collector (**column 4 lines 1-7**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sufleta to incorporate the teachings of Grenot. The motivation being a non-intrusive method for measuring the loss rate and transfer durations for data in a telecommunications network in packet mode.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd et al. (US 2003/0039212), hereinafter referred to as Lloyd in view of Klinker et al. (US 2003/0133443), hereinafter referred to as Klinker, in view of Grenot (US 6853619), hereinafter referred to as Grenot.

Regarding claim 18, Lloyd as modified by Klinker discloses the limitations of base claim 10.

Lloyd, Klinker, and combination fail to teach b1) transmitting a report queue control information.

Grenot discloses analyzing packet contents in order to infer the queue (**column 2 lines 9-14**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lloyd and Klinker to incorporate the teachings of Grenot. The motivation being a non-intrusive method for measuring the loss rate and transfer durations for data in a telecommunications network in packet mode.

5. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sufleta (US 6785237), hereinafter referred to as Sufleta in view of Grenot (US 6853619), hereinafter referred to as Grenot.

Regarding claim 28, Sufleta discloses the limitations of base claim 24.

Sufleta fails to teach wherein the control information includes a report queue control information.

Grenot discloses analyzing packet contents in order to infer the queue (**column 2 lines 9-14**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lloyd and Klinker to incorporate the teachings of Grenot. The motivation being a non-intrusive method for measuring the loss rate and transfer durations for data in a telecommunications network in packet mode.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd et al. (US 2003/0039212), hereinafter referred to as Lloyd in view of Klinker et al. (US 2003/0133443), hereinafter referred to as Klinker, in view of Grenot (US 6853619),

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hereinafter referred to as Grenot, in view of Tezuka (US 6658014), hereinafter referred to as Tezuka.

Regarding claim 20, the combinations of Lloyd and Klinker as modified by Grenot disclose the limitations of base claim 18.

Lloyd, Klinker, Grenot, and combination fail to teach ii) defining a queue length.

Tezuka discloses that a packet length (buffer count) is written into the control information (**column 8 lines 43-47**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lloyd, Klinker, and Grenot to incorporate the teachings of Tezuka. The motivation being a method and apparatus for dynamically constructing buffers.

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd et al. (US 2003/0039212), hereinafter referred to as Lloyd in view of Klinker et al. (US 2003/0133443), hereinafter referred to as Klinker, in view of Grenot (US 6853619), hereinafter referred to as Grenot, in view of Yazaki (US 6768738), hereinafter referred to as Yazaki.

Regarding claim 21, the combinations of Lloyd and Klinker as modified by Grenot disclose the limitations of base claim 18.

Lloyd, Klinker, Grenot, and combination fail to teach iii) defining a discard rule.

Yazaki discloses controlling quality of service by generating control information indicative of packet discarding (**column 3 lines 16-21**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lloyd, Klinker, and Grenot to incorporate the teachings of Yazaki. The motivation being an apparatus capable of setting flow conditions within a system including a plurality of networks connected to each other.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd et al. (US 2003/0039212), hereinafter referred to as Lloyd, in view of Klinker et al. (US 2003/0133443), hereinafter referred to as Klinker, in view of Sufleta (US 6785237), hereinafter referred to as Sufleta.

Regarding claim 22, Lloyd as modified by Klinker discloses the limitations of base claim 10.

Lloyd, Klinker, and combination fail to teach d1) calculating a quality of service with incomplete data.

Sufleta discloses that quality of service can be performed with only monitoring selected network connections **(column 6 lines 36-38)**.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the combination of Lloyd and Klinker to incorporate the teachings of Sufleta. The motivation being a passive method and system for quality of service monitoring of a network.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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- a) Kan et al. (US 2003/0214913), Passive Network Monitoring System
- b) Wolf et al. (US 6278694), Collecting and Reporting Monitoring Data From Remote Network Probes
- c) Goldsack et al. (US 6831890), Measuring Network Performance Parameters in Data Communication Networks
- d) Cen (US 6838349), Non-Intrusive Measurement of End-To-End Network Properties
- e) Mawhinney et al. (US 6556540), System and Method for Non-Intrusive Measurement of Service Quality in a Communications Network

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HH 10/14/2005


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